

REMARKS

Claims 1-18 were pending in the present application. Applicants have added new claims 19-21 to reflect objected claims 5, 6, and 12, respectively, written in independent form including all of the limitations of the base claims and intervening claims. No new matter has been added. Claims 5 and 6 have been cancelled. Applicants note that the Examiner has allowed claims 15-18.

Accordingly, claims 1-4 and 7-21 are now pending in this patent application. Reconsideration and allowance of claims 1-4, 7-14, and 19-21 is respectfully requested in view of the following remarks.

Present Invention

A method for monitoring audible tones indicative of operational status of each planar in a multiple planar chassis is disclosed. The method includes monitoring a speaker channel of each planar of a plurality of planars in a common chassis for state changes of beep tones. The method further includes identifying an operational status of a specific planar emitting the beep tones based on the state changes.

Rejections – 35 U.S.C. 103(a)

The Examiner has stated,

4. "Claims 1-4, 7-10, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. (United States Patent 6,832,344 B2) hereafter referred to as Lin '344 in view of Applicant's Admitted Prior Art, hereafter referred to as AAPA.
5. Regarding claim 1, Lin '344 discloses a method for monitoring audible tones of operational status of each planar in a chassis, the method comprising:
 - monitoring a speaker channel of the planar in a chassis for state changes of beep tones ("A first recorder (queue) 21 is used for recording the at least one signal transmitted from the hardware monitor 20," see col. 3, Lines 29-34); and
 - identifying an operational status of the planar emitting the beep tones based on the state changes ("The at least one signal is accessed by a controller 23. The corresponding sound data are accessed by the controller 23 according to the accessed signal. The corresponding sound data are transmitted from the controller 23 to the speech circuit 22, and then the sound signal is transmitted to report the precise problem in the computer," see col. 3, Lines 40-45).

Lin discloses the method except for wherein the planar is a part of a plurality of planars in a common chassis.

However, AAPA teaches multiple independent planars residing in a common chassis (see p. 1, line 13 to p. 2, line 1).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the method of Lin with the multiple planar apparatus of AAPA in order to take advantage of the increased densities of a blade-type system.

6. As to claim 2, Lin '344 also discloses the method of claim 1 wherein the step of monitoring further comprises monitoring with a microcontroller (controller 23, see Figure 2) on each planar.

7. As to claim 3, Lin '344 also discloses the method of claim 1 wherein the beep tones further comprise beep tones during a power on self test (POST) routine (the "sounds of beep" emanating from the BIOS, which are understood to refer to a computer's POST test, see col. 1, Lines 11-28).

8. As to claim 4, Lin '344 also discloses the method of claim 1 further comprising utilizing a timer to detect a duration of the beep tones (to differentiate "the different types and different frequency of sound," of the beep codes, a timer inherently must be used to detect their duration, see col. 1, Lines 23-27).

9. As to claim 7, Lin '344 also discloses the method of claim 1 wherein the state changes further comprise off-to-on and on-to-off transitions of the beep tones (to differentiate "the different types and different frequency of sound," of the beep codes, the off-to-on and on-to-off transitions must be identified, see col. 1, Lines 23-27).

10. Regarding claim 8, Lin '344 discloses a system for monitoring audible tones indicative of operational status of a planar in a chassis, the system comprising:

a chassis; and
a planar contained within the chassis, the planar including a speaker output that emits beep tones and each planar monitoring the beep tones for state changes ("A first recorder (queue) 21 is used for recording the at least one signal transmitted from the hardware monitor 20," see col. 3, Lines 29-34), wherein an operational status of the planar based on the state changes is identified ("The at least one signal is accessed by a controller 23. The corresponding sound data are accessed by the controller 23 according to the accessed signal. The corresponding sound data are transmitted from the controller 23 to the speech circuit 22, and then the sound signal is transmitted to report the precise problem in the computer," see col. 3, Lines 40-45).

Lin discloses the method except for wherein the planar is a part of a plurality of planars in a common chassis.

However, AAPA teaches multiple independent planars residing in a common chassis (see p. 1, line 13 to p. 2, line 1).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the method of Lin with the multiple planar apparatus of AAPA in order to take advantage of the increased densities of a blade-type system.

11. As to claim 9, Lin '344 also discloses the system of claim 8 wherein each planar further comprises a management microcontroller for monitoring the speaker output (controller 23, see Figure 2).

12. As to claim 10, Lin '344 also discloses the system of claim 9 wherein the management microcontroller utilizes a timer to detect a duration of the beep tones (to differentiate "the different types and different frequency of sound," of the beep codes, a timer inherently must be used to detect their duration, see col. 1, Lines 23-27).

13. As to claim 13, Lin '344 also discloses the system of claim 8 wherein the state changes further comprise off-to-on and on-to-off transitions of the beep tones (to differentiate "the different types and different frequency of sound," of the beep codes, the off-to-on and on-to-off transitions must be identified, see col. 1, Lines 23-27).

14. As to claim 14, Lin '344 also discloses the system of claim 8 wherein the beep tones further comprise beep tones during a POST routine (the "sounds of beep" emanating from the BIOS, which are understood to refer to a computer's POST test, see col. 1, Lines 11-28).

15. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. (United States Patent 6,832,344 B2) hereafter referred to as Lin '344 in view of Applicant's Admitted Prior Art, hereafter referred to as AAPA, further in view of Examiner taking Official Notice.

16. As to claim 11, Lin '344 discloses the system of claim 8 except comprising a chassis management module within the chassis and coupled to each planar.

However, it is well known that a chassis management module within a chassis may be coupled to each planar.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the Lin/AAPA system with a chassis management module in order to allow for the configuration of the chassis and individual blades."

Applicants respectfully disagree with the Examiner's rejections. Applicants will describe with particularity the differences between the recited invention and the cited prior art references below.

For ease of review, claim 1 as amended is reproduced below:

1. A method for monitoring audible tones indicative of operational status of each planar in a multiple planar chassis, the method comprising:
monitoring a speaker channel of each planar of a plurality of planars in a common chassis for state changes of beep tones; and
identifying an operational status of a specific planar emitting the beep tones based on the state changes.

Lin does not teach or suggest "monitoring a speaker channel of each planar of a plurality of planars in a common chassis for state changes of beep tones"

Applicants submit that Lin does not teach or suggest "monitoring a speaker channel of each planar of a plurality of planars in a common chassis for state changes of beep tones," as recited in claim 1.

For example, Applicants have provided a section of the specification (page 4, last paragraph to page 5) as an example of the aforementioned claim limitation below:

The beep handler routine processes the on/off and off/on transitions and records the transitions with the assistance of a timer. Each off/on transition can be used to determine the duration of the beep to identify the type of beep (i.e., short or long). Thus, as shown in Figure 3, the beep handler determines if the beep is in an OFF state (step 60), and if so, a timer is started (step 62). The process then returns to await data indicative of a next beep state change. Once the beep state change data is not in a beep OFF state (step 60 is negative), an off-to-on transition has occurred, and the process continues to indicate the elapsed time of the timer (step 64). An indication of the type of beep, short or long, based on the amount of elapsed time is appended to a beep list (step 66) and the process returns to await data indicative of a next beep state change. (emphasis added)

It is the Examiner's position that Lin's discussion of a "first recorder (queue) 21 used for recording the at least one signal transmitted from the hardware monitor 20" provides the above-mentioned claim limitation. Applicants respectfully disagree.

At best, Lin discusses a first recorder (queue) 21 that is limited to recording at least one signal transmitted from the hardware monitor 20. Once the at least one signal is recorded in the first recorder (queue) 21, the signal is accessed by a controller 23, which transmits corresponding sound data to a speech circuit 22 such that the sound signal is transmitted to report the precise problem in a computer (column 3, lines 25-45).

Applicants submit that although Lin discusses how the first recorder (queue) 21 can be utilized within a computer to transmit a sound signal in the event of a failure within a computer, transmitting a sound signal in the event of a computer failure is not the same as "monitoring a speaker channel of each planar of a plurality of planars in a common chassis for state changes of beep tones," as recited in claim 1. In fact, Lin does not discuss in any form monitoring a speaker channel for state changes of beep tones. Accordingly, Lin does not teach or suggest claim 1.

Moreover, the Examiner has referenced AAPA (Applicants' Admitted Prior Art) as teaching multiple independent planars residing in a common chassis (see p. 1, line 13 to p. 2, line 2). Applicants submit that even if Lin's method is disclosed within the context of multiple independent planars residing in a common chassis, Lin does not

singly nor in combination with AAPA provide a method that includes “monitoring a speaker channel of each planar of a plurality of planars in a common chassis for state changes of beep tones,” as recited in claim 1.

Lin does not teach or suggest “identifying an operational status of a specific planar emitting the beep tones based on the state changes”

Applicants submit that Lin does not teach or suggest “identifying an operational status of a specific planar emitting the beep tones based on the state changes,” as recited in claim 1.

The Examiner has referenced Lin’s discussion of the at least one signal accessed by the controller 23; the corresponding sound data accessed by the controller 23 according to the accessed signal; the corresponding sound data transmitted to the speech circuit 22; and the sound signal transmitted to report the precise problem in the computer to provide the aforementioned claim limitation. Applicants respectfully disagree.

Lin merely describes a method for transmitting a sound signal to report a precise problem in a computer, as stated above. However, Lin does not teach or suggest “identifying an operational status of a specific planar emitting the beep tones based on the state changes,” as recited in claim 1. In fact, as previously mentioned, Lin does not discuss in any form identifying an operational status of planars (or other computer hardware) based on state changes. Accordingly, for this reason Lin does not teach or suggest claim 1.

Therefore, because Lin does not singly or in combination with AAPA teach or suggest “monitoring a speaker channel of each planar of a plurality of planars in a common chassis for state changes of beep tones” and “identifying an operational status of

a specific planar emitting the beep tones based on the state changes,” Lin does not teach or suggest claim 1.

Applicants submit that claims 2-4 and 7 are also allowable since they depend directly upon an allowable base claim. In addition, Applicants note that the dependent claims are also allowable on their own merits.

Claim 8

Claim 8 is an independent system claim that has similar limitations to that of claim 1. Therefore, claim 8 should be allowable for at least the reasons set forth with respect to claim 1.

Applicants submit that claims 9-14 are also allowable since they depend directly upon an allowable base claim. In addition, Applicants note that the dependent claims are also allowable on their own merits.

Claims 15-18

The Examiner has stated that claims 15-18 are allowed.

Claims 19-21

Applicants appreciate and acknowledge that the Examiner has stated that claims 5, 6, and 12 would be allowable if re-written in independent form, including all of the limitations of the base claims and intervening claims.

Applicants have added new claims 19-21 that are claims 5, 6, and 12 respectively, rewritten in independent form. Therefore, claims 19-21 are allowable over the cited references.

Conclusion

In view of the foregoing, Applicants submit that claims 1-4 and 7-21 are in condition for allowance. Applicant respectfully requests reconsideration and allowance of the claims as now presented. Should any unresolved issues remain, Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,

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